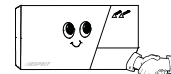


ESPRESSO 748 PROGRAMMING GUIDE



USER FRIENDLY

SOFTWARE VERSIONS 0.96/0.97

BENCH TEST

Refer to Connection (Wiring) Diagram.

Note: [] indicates keypad key i.e. [2], [ENTER], [CLEAR], [MEM].

Shaded addresses are not applicable. Any values must be entered i.e. [2ND].

- To set zones in non-alarm state (keypad zone lights off), install **green** (1K OHM) resistors across zone terminals.
- Connect keypad. Install **green** (1K OHM) resistor across keypad zone.
- Connect sounder or install **green** (1K OHM) resistor across "BELL" terminal.
- Connect AC, connect battery.
- [TRBL] key illuminates, due to timer loss. Push [TRBL] to view trouble conditions, (see Keypad Trouble Display).
- All keypad lights should be off and keypad should respond to Master code arming and disarming.
- Master Code: *default 474747*.
- Keypad Programming (*default installer code 747474*).

HEXA PROGRAMMING

(Used to program "Access to Upload/Download" and "Installer Code")
All digits from 0 to F are valid. (See Interpreting Hexa Values)

Programming values are programmed into memory locations from address **000** to **007**.

- Press [ENTER] + installer code (default 747474)
- Key [ENTER] will flash (programming mode)
- Enter 3 digit memory address
- Enter 2 digit data (See Hexa Display to read value)
- To erase, press [CLEAR]. To save press [ENTER]
- Go to step 3 for next address

To exit programming mode press [CLEAR]

ACCESS TO UPLOAD/DOWNLOAD:

000: [2ND]/__ Number of rings before answer (*default 8 rings*)
Enter "[2ND][2ND]" - panel will not answer.

PANEL IDENTIFIER (*default code "empty"*)

001: __/___ 002: __/___

PC PASSWORD (*default code "empty"*)

003: __/___ 004: __/___

INSTALLER CODE: (*default code 747474*)

Full access to programming, (all addresses except **008-058**)
No access to arming/disarming and access code programming
(can be used to modify installer code)

Important: Use only numeric keys from [1] to [10] (key [10] = 0) to enter installer code.

005: __/___ 006: __/___ 007: __/___

KEYPAD TROUBLE DISPLAY

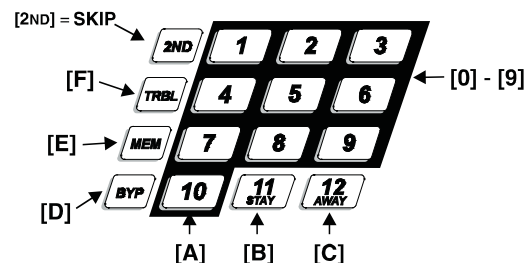
Key "ON" =

- | | |
|----------------------------|-----------------------------------|
| [1] No battery/low voltage | [7] Communicator report failure |
| [3] AC failure | [8] Timer loss* |
| [4] Bell disconnect | [9] Tamper or zone wiring failure |
| [5] Maximum bell current | [10] Telephone line failure |
| [6] Max auxiliary current | [11] Fire loop trouble |

*To clear timer loss trouble, see *Key Access Programming* [MEM].
Press [CLEAR] to clear troubles.

INTERPRETING HEXA VALUES

KEY	HEXA VALUE	DECIMAL VALUE
[1] - [9]	1 - 9	1 - 9
[10]	A	0
[11]	B	11
[12]	C	12
[BYP]	D	13
[MEM]	E	14
[TRBL]	F	15
[2ND]	skip, null, not programmed	



HEXA DISPLAY

If key is lit = 8 = 4 = 2 = 1



If key is lit = 8 = 4 = 2 = 1

No display = SKIP (empty)

10 = [0] = [A]

Value of
2ND digit = 10
(8 + 2 = 10)

Value of
1ST digit = 3
(2 + 1 = 3)
VALUE = "30"

No light = 0

REPORTING CODES: (default code "empty")

All digits from [1]-[F] are valid. [2ND] (SKIP) = digit is not reported.

Streamlined (section) programming: [ENTER] + installer code + [2], [7].

IMPORTANT: If the **ONLY** reporting format selected at address **194** is "contact I.D." (key [10] - all codes), there is no need to program any values for addresses **088 - 193**. (See Contact ID format, page 5)

ARMING (closing) CODES:

Streamline section	Data	Description	Address
07	—/—	User code 1	088
	—/—	User code 2	089
	—/—	User code 3	090
	—/—	User code 4	091
08	—/—	User code 5	092
	—/—	User code 6	093
	—/—	User code 7	094
	—/—	User code 8	095
09	—/—	User code 9	096
	—/—	User code 10	097
	—/—	User code 11	098
	—/—	User code 12	099
10	—/—	User code 13	100
	—/—	User code 14	101
	—/—	User code 15	102
	—/—	User code 16	103

DISARMING (opening) CODES:

Streamline section	Data	Description	Address
11	—/—	User code 1	104
	—/—	User code 2	105
	—/—	User code 3	106
	—/—	User code 4	107
12	—/—	User code 5	108
	—/—	User code 6	109
	—/—	User code 7	110
	—/—	User code 8	111
13	—/—	User code 9	112
	—/—	User code 10	113
	—/—	User code 11	114
	—/—	User code 12	115
14	—/—	User code 13	116
	—/—	User code 14	117
	—/—	User code 15	118
	—/—	User code 16	119

ALARM CODES ZONE 1 TO 12:

Streamline section	Data	Description	Address
15	—/—	Zone 1	120
	—/—	Zone 2	121
	—/—	Zone 3	122
	—/—	Zone 4	123
16	—/—	Zone 5	124
	—/—	Zone 6	125
	—/—	Zone 7	126
	—/—	Zone 8	127
17	—/—	Zone 9	128
	—/—	Zone 10	129
	—/—	Zone 11	130
	—/—	Zone 12	131

ALARM CODES ZONE 13 TO 24:

Streamline section	Data	Description	Address
18	—/—	Zone 13	132
	—/—	Zone 14	133
	—/—	Zone 15	134
	—/—	Zone 16	135
19	—/—	Zone 17	136
	—/—	Zone 18	137
	—/—	Zone 19	138
	—/—	Zone 20	139
20	—/—	Zone 21	140
	—/—	Zone 22	141
	—/—	Zone 23	142
	—/—	Zone 24	143

Zones 7 to 12 and 19 to 24 report with account "B" and in a partitioned system are assigned to system "B".

For single digit reporting enter "skip" ([2ND]) as first digit.

REPORTING CODES: (default code "empty").

All digits from [1]-[F] are valid.

[2ND] (SKIP) = digit is not reported.

Streamlined (section) programming: [ENTER] + installer code + [2], [7].

ZONE 1 TO 12 RESTORE CODES:

Streamline section	Data	Description	Address
21		Zone 1	144
		Zone 2	145
		Zone 3	146
		Zone 4	147
22		Zone 5	148
		Zone 6	149
		Zone 7	150
		Zone 8	151
23		Zone 9	152
		Zone 10	153
		Zone 11	154
		Zone 12	155

ZONE 13 TO 24 RESTORE CODES:

Streamline section	Data	Description	Address
24		Zone 13	156
		Zone 14	157
		Zone 15	158
		Zone 16	159
25		Zone 17	160
		Zone 18	161
		Zone 19	162
		Zone 20	163
26		Zone 21	164
		Zone 22	165
		Zone 23	166
		Zone 24	167

Zones 7 to 12 and 19 to 24 report with account "B" and in a partitioned system are assigned to system "B".

TROUBLE CODES:

Streamline section	Data	Description	Address
27		Maximum auxiliary current	168
		Bell disconnect / max. bell current	169
		Battery disconnected / low voltage	170
		No AC / low AC	171
28		Program change	172
		Timer loss	173
		Fire loop trouble	174
		Test report	175

TROUBLE RESTORE CODES:

Streamline section	Data	Description	Address
29		Maximum auxiliary current	176
		Bell disconnect	177
		Battery disconnected / low voltage	178
		No AC / low AC	179
30		Tamper / wiring fault	180
		Timer programmed	181
		Fire loop trouble	182
		TLM trouble restore	183

For single digit reporting enter "skip" ([2ND]) as first digit.

REPORTING CODES: (default code "empty").

All digits from [1]-[F] are valid.

[2ND] (SKIP) = digit is not reported.

Streamlined (section) programming: [ENTER] + Installer code + [2], [7].

SPECIAL CODES - FORMATS - PGM:

Streamline section	Data	Description	Address
31	___/___	Panic 1	184
	___/___	Panic 2	185
	___/___	Panic 3	186
	___/___	Partial arming	187
32	___/___	Auto / Espload arm	188
	___/___	Arm with master code	189
	___/___	No movement*/ late to close	190
	___/[2ND]	Tamper on zones 1-12**	191
		2nd digit: any value must be entered i.e. [2ND]	
33	___/___	Disarm with Espload	192
	___/___	Disarm with master code	193
	___/___	1st digit: telephone 1 format	194
	___/___	2nd digit: telephone 2 format	195
34	___/___	1st digit: PGM 1 TYPE	196
	___/___	2nd digit: PGM 2 TYPE	197
	___/___	PGM 1 (1st and 2nd digit)	198
	___/___	PGM 2 (1st and 2nd digit)	199

TYPICAL PGM OUTPUTS

Addresses 196-199 (section 34)

FUNCTION	DESCRIPTION	TYPE	HEXA	PROG.
			Address	Address
			/	/
**Ground start Pulse (Timed N.O.)	*Provides 3 sec. pulse before communication attempt	5	5/2	[2ND]/8
Push key [1] and [2] (Regular N.O.)	Provides output when keys [1] and [2] are pressed simultaneously.	1	5/8	[2ND]/6
System armed (Regular N.C.)	Output removed when system armed.	9	2/B	[2ND]/8
Strobe output (Regular N.O.)	Provides latching output on alarm, until disarmed.	1	2/C	[2ND]/2
Fail to communicate (Timed N.O.)	*Provides output upon fail to communicate for 2 minutes.	5	2/6	[2ND]/4
2 nd telephone line relay (Regular N.O.)	Provides output after one failed communication attempt.	[2ND]	7/A	[2ND]/E
Kiss off (Timed N.O.)	*Provides 3 sec. output after signal received at monitoring station.	5	7/D	[2ND]/8
Time output (Timed N.O.)	*Provides 3 sec. output every day at 8PM.	6	2/3	1/4
Fire reset (Timed N.C.)	*[TRBL] + [11] Provides 4 sec. to reset detectors after alarm.	[BYP]	5/3	2/[2ND]

Times must be programmed at address 254.***Not permitted on UL listed systems****CONTACT I.D. FORMAT**

Address 194 (section 33, key [9], [10])

If CONTACT I.D. (ALL CODES) is selected, (address 194, key [10]), all addresses from 088 to 193, programmed or not, will report Contact I.D. event codes. (Refer to "Contact I.D. event code" list, Installation Manual) Programming is not required for these addresses when **ONLY** this format is used.

If CONTACT I.D. (SELECTED CODES) is chosen, (address 194, key [9]), all addresses from 088 to 193, programmed with ANY VALUE except [2ND] [2ND], will report Contact I.D. event report codes. (Refer to "Contact I.D. event code" list, Installation Manual)

(Potential application: to report in Contact I.D. format to one central station number, and 4/2 format to the second. Use 4/2 format to program addresses. At address 194, select a 4/2 format for one telephone number, and Contact I.D. format for the second. The software will automatically convert the 4/2 codes to Contact I.D. codes when transmitting them to the second receiver.)

COMMUNICATOR FORMAT

Address 194 (section 33)

KEY

[2ND]	= ADEMCO slow (1400Hz, 1900Hz, 10bps)
[1]	= (1400Hz, 1800Hz, 10bps)
[2]	= SILENT KNIGHT fast (1400Hz, 1900Hz, 20bps)
[3]	= SESCOA (2300Hz, 1800Hz, 20bps)
[4]	= RADIONICS (40bps with 1400Hz handshake)
[5]	= RADIONICS (40bps with 2300Hz handshake)
[6]	= RADIONICS with PARITY (1400Hz, 40bps)
[7]	= RADIONICS with PARITY (2300Hz, 40bps)
[8]	= ADEMCO express
[9]	= ADEMCO contact ID (selected codes)
[10]	= ADEMCO contact ID (all codes)
[TRBL]	= DTMF - no handshake (personal dialing)

IMPORTANT:**Dialer circuit is patent pending.****PGM TYPE**

Address 195 (section 33)

KEY

[2ND] : OR	} Reg N.O.	[8] : OR	} Reg N.C.
[1] : AND		[9] : AND	
[2] : EQUAL		[10] : EQUAL	
[4] : OR	} Timed N.O.	[12] : OR	} Timed N.C.
[5] : AND		[BYP] : AND	
[6] : EQUAL		[MEM] : EQUAL	

(For timed PGM see also address 254)

*No movement for specified time or panel not armed at specified hour - see addresses 245, 246, 253.

**First digit of zone tamper is reported with 2nd digit of zone 1 to 12 alarm codes - see addresses 120 - 131.

FEATURE SELECT (LIGHT ON/OFF) PROGRAMMING

Feature selection programming addresses to The "ON"/"OFF" status of the lights (keys) determines features selected.

- 1) Press + installer code (default 747474), key will flash.
- 2) Enter 3 digit memory address (to).
- 3) Press corresponding key to select option.
- 4) To change selection press key again.
- 5) To save press .
- 6) Repeat steps 3 to 5 for addresses to
- 7) To exit programming mode press

Note: Default = "OFF" for addresses to

CODE PRIORITY																	
KEY SELECT: [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [BYP] [MEM] [TRBL] [2ND]																	
200:	SYSTEM "A" / STAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
202:	SYSTEM "B" / AWAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
204:	Codes with bypass access	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

206:

See "TLM" Table

PS1/Keyswitch = regular arm / (A + B)
 PS1/keys switch arming
 Call back
 Auto arm on time
 Auto arm on no movement
 Pulse dialing
 Partitioning
 Silent zone/panic generates a silent alarm
 (1:2) PULSE EUROPE
 (1:1.5) PULSE USA

See "REPORTING" Table

Answering machine override
 Bell squawk on arm/disarm
 Auto zone shut-down

KEY
OFF / ON

☐	[2ND]	☐
☐	[1]	☐
☐	[2]	☐
☐	[3]	☐
☐	[4]	☐
☐	[5]	☐
☐	[6]	☐
☐	[7]	☐
☐	[8]	☐
☐	[9]	☐
☐	[10]	☐
☐	[11]	☐
☐	[12]	☐
☐	[BYP]	☐
☐	[MEM]	☐
☐	[TRBL]	☐

TLM TABLE (TLM = Telephone Line Monitor)

Address 206, Key [2ND] [1]

KEY		
[2ND]	[1]	
OFF	OFF	TLM disabled
OFF	ON	TLM generates trouble only
ON	OFF	generates an alarm if armed
ON	ON	silent alarm becomes audible

(address 206, key [9] has to be OFF)

REPORTING TABLE

Address 206, Key [11] [12]

KEY		TYPE	DIALING SEQUENCE (tel. No.)
[11]	[12]		
OFF	OFF	Reporting disabled	
OFF	ON	Regular reporting	- 2,1,2,1,2,1,2,1, fail to comm.
ON	OFF	Split reporting: Alarms*	- 1,1,1,1,1,1,1,1, fail to comm.
		System report	- 2,2,2,2,2,2,2,2, fail to comm.
ON	ON	Double reporting	- 2,2,2,2,2,2,2,2, fail to comm., 1,1,1,1,1,1,1,1, fail to comm.

*On alarm, all reports are made to Tel. #1 until the system is disarmed.
 (Once disarmed system reports are made to Tel. #2)

208:

Call PC when event list is full
 Panic 1 (keys [1] & [3], PS1)
 Panic 2 (keys [4] & [6])
 Panic 3 (keys [7] & [9])
 Panic 1 silent (PS1)
 Panic 2 silent
 Panic 3 silent
 Key [10] regular arm / (A + B)
 Key [11] stay or system A arm
 6 digit access codes
 See "Tamper/Wire definition table"
 Beep on exit delay
 Report zone restore on bell cut-off
 Zones with EOL green (1KΩ)
 Always report disarm

KEY
OFF / ON

☐	[2ND]	☐
☐	[1]	☐
☐	[2]	☐
☐	[3]	☐
☐	[4]	☐
☐	[5]	☐
☐	[6]	☐
☐	[7]	☐
☐	[8]	☐
☐	[9]	☐
☐	[10]	☐
☐	[11]	☐
☐	[12]	☐
☐	[BYP]	☐
☐	[MEM]	☐
☐	[TRBL]	☐

TAMPER / WIRE FAULT DEFINITION TABLE

Address 208, Key [10] [11]

SYSTEM ARMED		KEY	SYSTEM DISARMED*
		[10] [11]	
Alarm as per individual zone definitions	OFF	OFF	Disabled (zone doubler is "off")
	OFF	ON	No alarm, trouble code reported
Always generate trouble and alarm, audible or silent as per individual zone definitions (In this section ATZ is enabled)	ON	OFF	Silent alarm and trouble codes reported
	ON	ON	Audible alarm and trouble codes reported**

* Exception: for 24 hour zones the tamper definition will follow the audible/silent alarm definition of the 24 hour zone.

** Silent zones will generate a silent alarm

FEATURE SELECT (LIGHT ON/OFF) PROGRAMMING

Feature selection programming addresses to The "ON"/"OFF" status of the lights (keys) determines features selected.

- 1) Press + installer code (default 747474), key will flash.
- 2) Enter 3 digit memory address (to).
- 3) Press corresponding key to select option.
- 4) To change selection press key again.
- 5) To save press .
- 6) Repeat steps 3 to 5 for addresses to
- 7) To exit programming mode press

Note: Default = "OFF" for addresses to

210:

	KEY OFF / ON	
Exclude AC from trouble display	☐ [2ND] ☐ enabled	
Zone 24	☐ [1] ☐ disabled (in case of fire zone 12 only)	
Auto arm = regular arm / (A + B)	☐ [2] ☐ stay arm / System A	
Arming regular	☐ [3] ☐ auto away	
Arm-inhibit on batt fail	☐ [4] ☐ enabled	
Arm-inhibit on tamper*	☐ [5] ☐ enabled	
No tamper bypass	☐ [6] ☐ tamper follows zone bypass definition	
Only bypass code reported on bypass arming	☐ [7] ☐ enabled	

*Only installer can clear tamper trouble.

ZONE DEFINITION: (default = " ")																							
KEY SELECT: [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12]												[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12]											
212 1 2 3 4 5 6 7 8 9 10 11 12												214 13 14 15 16 17 18 19 20 21 22 23 24											
Fast = ON ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐												☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐											
216 1 2 3 4 5 6 7 8 9 10 11 12												218 13 14 15 16 17 18 19 20 21 22 23 24											
Silent = ON ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐												☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐											
220 1 2 3 4 5 6 7 8 9 10 11 12												222 13 14 15 16 17 18 19 20 21 22 23 24											
24 Hr./ Fire = ON ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐												☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐											
*When zone 12 is defined "24 Hour" it becomes a fire zone																							
224 1 2 3 4 5 6 7 8 9 10 11 12												226 13 14 15 16 17 18 19 20 21 22 23 24											
Instant = ON ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐												☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐											
228 1 2 3 4 5 6 7 8 9 10 11 12												230 13 14 15 16 17 18 19 20 21 22 23 24											
Follow = ON ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐												☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐											
232 1 2 3 4 5 6 7 8 9 10 11 12												234 13 14 15 16 17 18 19 20 21 22 23 24											
Delay 2 = ON ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐												☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐											
236 1 2 3 4 5 6 7 8 9 10 11 12												238 13 14 15 16 17 18 19 20 21 22 23 24											
Bypass enabled = ON ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐												☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐											
240												242											
SYSTEM A						SYSTEM B						SYSTEM A						SYSTEM B					
If ON, zone is ARMED on stay or split arming																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

NOTE: Zones not selected at addresses 220 to 234 are "Delay 1" zones.

KEY ACCESS PROGRAMMING

Several panel features can be programmed quickly, without entering addresses or programming section numbers. Select "one-key access" programming mode by pressing **[ENTER]**, followed by the installer, master or user 1 code (depending on the feature you wish to activate, only certain codes will be functional). Then press the single key (listed below) corresponding to the feature you wish to enable.

key

- [9]** "Auto arming" time program: (accessible to master and user 1 only)
Enter two digits (00 to 23) for hours + 2 digits (00 to 59) for minutes + **[ENTER]**.
- [MEM]** "Panel time" and clear "trouble 8" (all 3 codes)
Enter two digits (00 to 23) for hours + 2 digits (00 to 59) for minutes + **[ENTER]**
- [BYP]** Test report (all 3 codes)
Reporting is enabled at address **206** keys **[11]**, **[12]**. A value must be entered at address **175**, and both telephone and account numbers must be programmed.
- [TRBL]** Call Espload via telephone (all 3 codes)
Panel and PC ID numbers (addresses **001-004**) and PC download phone number (addresses **060-067**) must be programmed.
- [AWAY]** Answer Espload (all 3 codes)
This feature is available when using the ADP-1 adapter. In Espload, "blind dial" must be activated in "modem setup" section, and panel phone number programmed (works also without ADP-1).
- [STAY]** Cancel communication attempts (master code and user 1 can only stop calls from/to Espload)
Until next reportable event (installer code - all communications)
- [STAY]** Reset to default panel settings (installer code only)
Connect reset jumper. Press **[ENTER]** + installer code + **[STAY]**, remove reset jumper.
- [2], [6]** Installer test mode (installer code only)
In installer test mode, a confirmation beep (intermittent) indicates test is "on", a "rejection" beep (long) indicates test is "off". The bell will squawk during walk testing to indicate opened, functional zones.
- [2], [7]** Streamlined value entry (installer code only)

Note: When communicating with Espload, it is impossible to enter programming mode.

CHANGE MASTER AND USER CODES

(default master **474747**)

[ENTER] + master code + code number (2 digits, 00 to 16) + new code (4 or 6 digits, 0 to 9) + **[ENTER]**.
Use **[2ND]** to erase a code.

Master code = 00 ([10][10]) Full access to all system functions.

User codes = 01-16 (01 - can modify access codes. All user code priorities can be programmed at addresses **200**, **202**, **204** with the installer code.)

Note: **[2ND]** key flashes if location is empty.

To erase a code: **[ENTER]** + Master + Code Number + **[2ND]** + **[ENTER]**

748

**Input
Terminal #**

**Zone #'s
(without ATZ)**

**ATZ zone #'s
(double zones)**
green (1K Ω) brown (.5K Ω)

1/13	1	1	13
2/14	2	2	14
3/15	3	3	15
4/16	4	4	16
5/17	5	5	17
6/18	6	6	18
7/19	7	7	19
8/20	8	8	20
9/21	9	9	21
10/22	10	10	22
11/23	11	11	23
12/24	12*	12*	24

*Fire zone when programmed "24 hour"

RESISTOR GUI E

1000 Ω (1K Ω)



GREEN
Normal Zone

500 Ω * (.5K Ω)

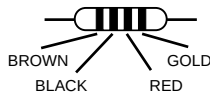


BROWN
Double Zone

*If unavailable, a 510 Ω is acceptable

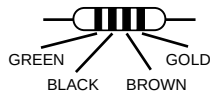
RESISTOR GUI E (ALTERNATE)

1000 Ω (1K Ω)



Normal Zone

500 Ω * (.5K Ω)



Double Zone

*If unavailable, a 510 Ω is acceptable

ESPRIT 748 CONNECTION DIAGRAMS

The system hardware will recognize the following conditions for each zone:

ADVANCED TECHNOLOGY ZONE connection, 2 zones resistor (without EOL), tamper recognition (N.C. contacts)

address **208**, key [MEM] = "on"

key [10] = See "Tamper/wire Fault Definitions and Options"

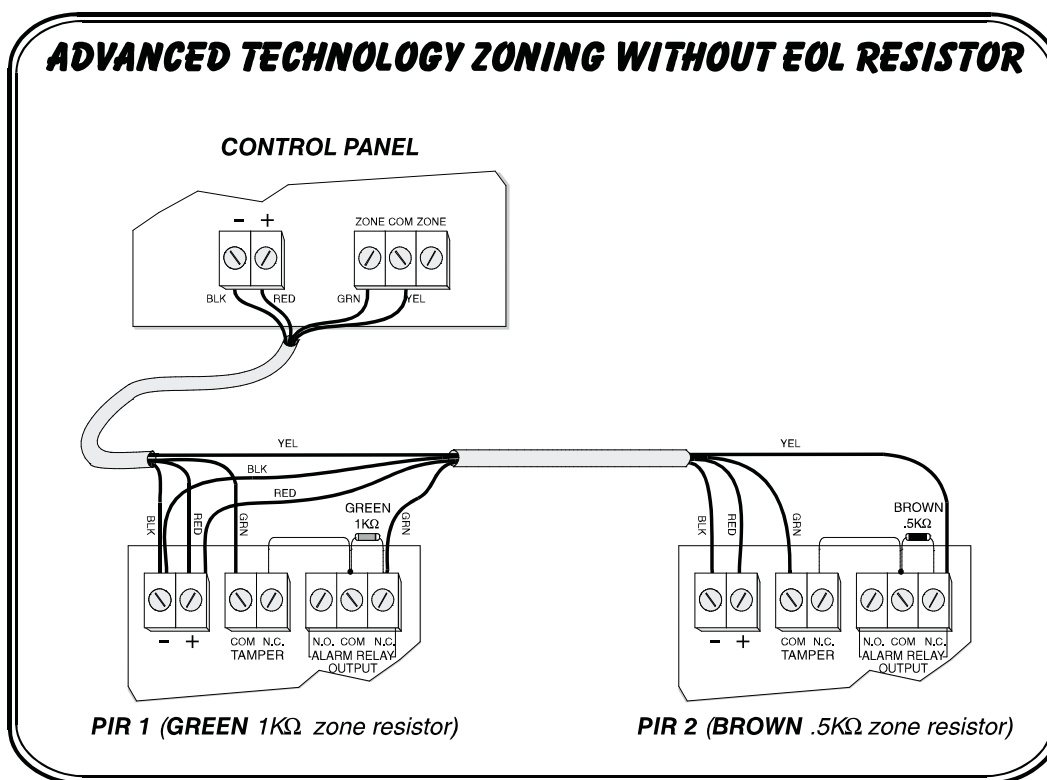
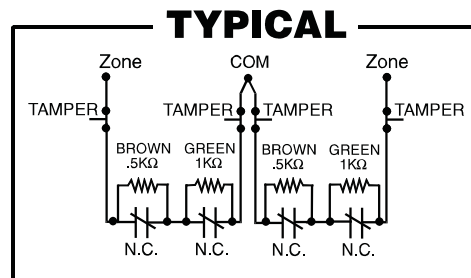
key [11] =

Tamper fault transmits separate code

Each zone transmits separate alarm code, see "TYPICAL"

4 Alarm zones

2 Tamper signals



SINGLE ZONE connection without EOL resistor (N.C. contacts)

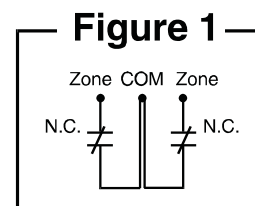
address **208**, key [MEM] = "on"

key [10] = "off" (default)

key [11] = "off" (default)

N.C. contacts see Figure 1

Note: Keypad zones always use **green** (1K OHM) EOL



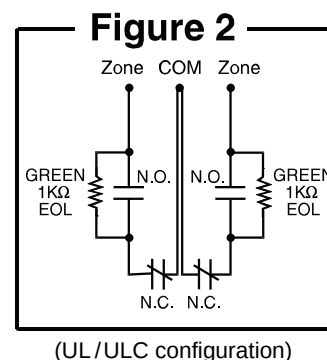
SINGLE ZONE connection with 1 EOL resistor (N.C. and N.O. contacts)

address **208**, key [MEM] = "off" (default)

key [10] = "off" (default)

key [11] = "off" (default)

N.C. and/or N.O. contacts, see Figure 2



(UL / ULC configuration)

ESPRIT 748 CONNECTION DIAGRAMS (continued)

ADVANCED TECHNOLOGY ZONE connection, 2 zones with zone resistors, 1 EOL resistor green (1KΩ) tamper (open) recognition, wire fault (short circuit) recognition (N.C. contacts)

address 208, key [MEM] = "off"

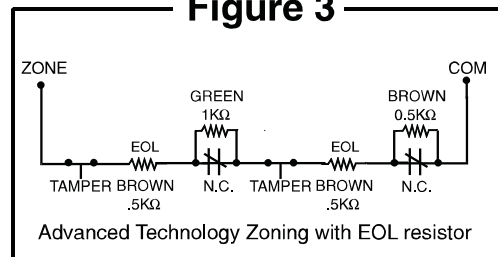
key [10] = See "Tamper/wire Fault Definitions

key [11] = and Options"

Each zone transmits a separate alarm code.

Tamper/wire fault transmits a separate alarm code, indicated by fast flashing zone light on keypad and is annunciated in **Esplod**, see figure 3.

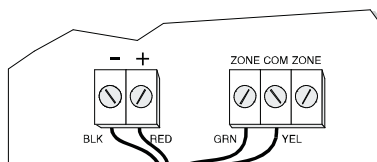
Figure 3



(UL/ULC configuration)

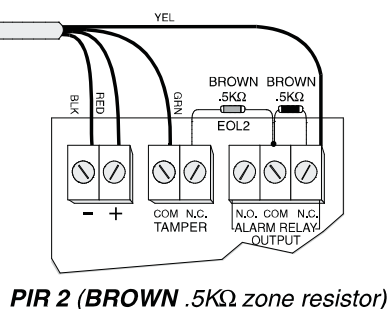
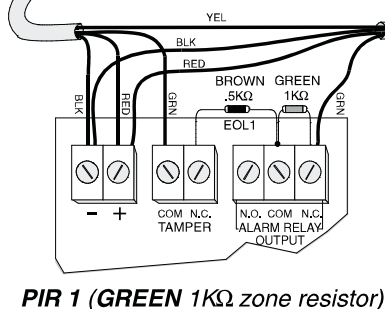
ADVANCED TECHNOLOGY ZONING WITH EOL RESISTOR

CONTROL PANEL



UL/ULC Configuration

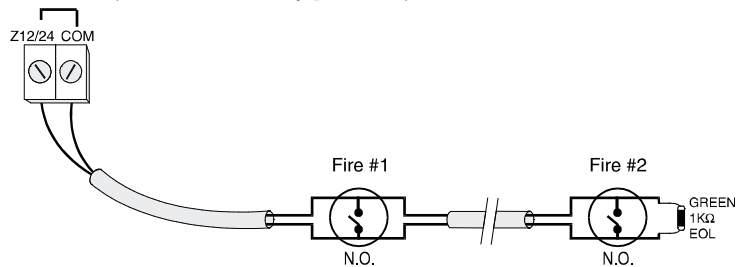
*Note: Jumper can be installed instead of **BROWN (0.5KΩ)** EOL1. Change EOL2 on PIR 2 to **GREEN (1KΩ)**. Total EOL equals **GREEN (1KΩ)**.



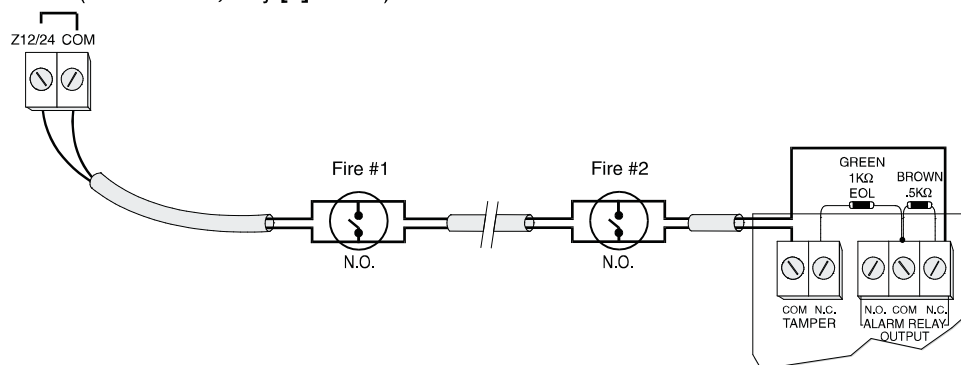
ESPRIT 748 CONNECTION DIAGRAMS (continued)

DOUBLE FIRE LOOP

Without zone 24 (address **210**, key **[1]** = ON)



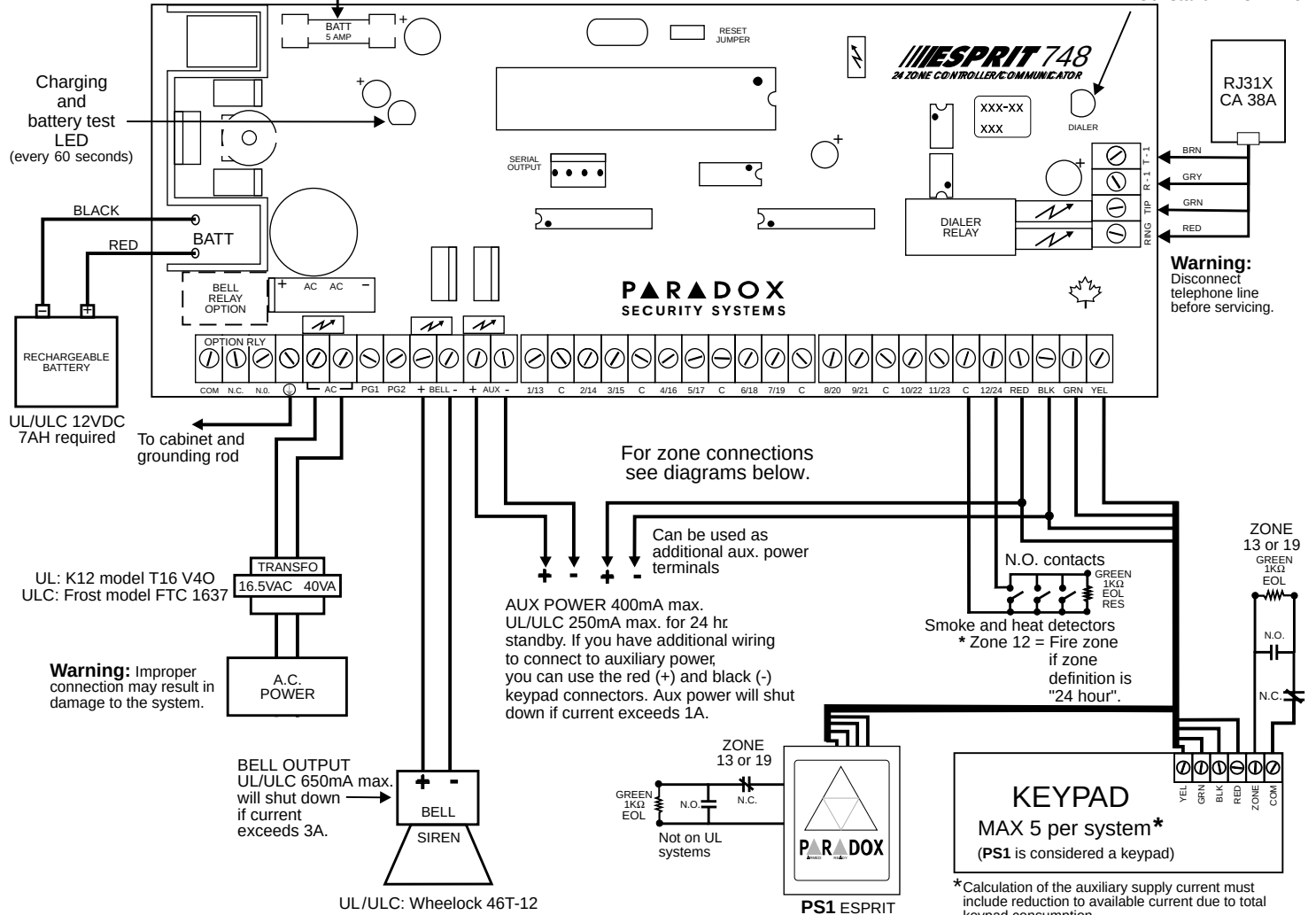
With zone 24 (address **210**, key **[1]** = OFF)



ESPRIT 748 WIRING DIAGRAM

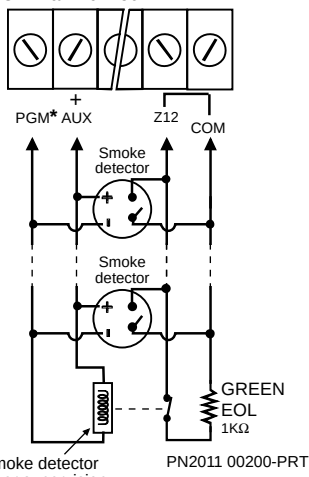
"TLM" LED: Short flash = OK
Long flash = Fault
OFF = Disabled
Constant = On Line

Caution: Disconnect battery before replacing fuse.



FIRE ALARM ZONE CONNECTIONS

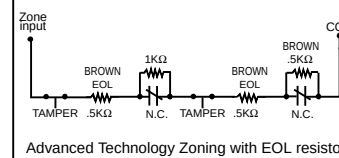
* PGM maximum 50mA



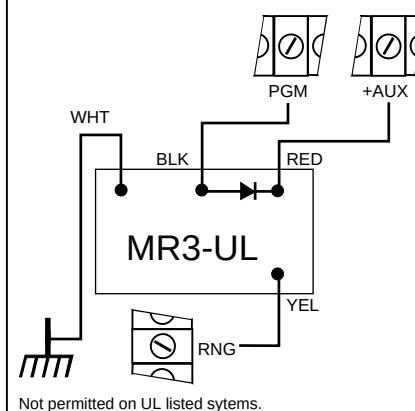
To reset smoke detectors, press [TRBL] + [11]

Smoke detector must be 4 wire latching - UL Falcon model 5454, ULC BRK 2412 Power supervision relay model MR3-UL.

TYPICAL (UL/ULC) ZONE CONNECTIONS



GROUND START CIRCUIT



KEYSWITCH CONNECTION



Keyswitch can be used in parallel with keypad (or PS1), (not on UL systems).

PGM OUTPUT RELAY

